Shot in the Arm for Greensburg

Inside

Treating
OVARIAN CANCER

Educating
WOUNDED WARRIORS

Supporting
SMALL-TOWN PHARMACIES
One of the privileges of being chancellor of the University of Kansas is the many opportunities this post has given me to travel around our state.

This state still possesses a proud pioneer spirit. From our smallest towns to our largest cities, Kansans share a sense of optimism about the future, a willingness to take risks and break new ground, and a belief in the importance of working together for the common good.

As the state’s flagship university, KU has a responsibility to reflect those values.

Through the more than 6,000 students who earn degrees from KU each year, we demonstrate our commitment to the future and provide educated workers for the economy of Kansas.

Through the cutting-edge research that takes place here, we challenge old ideas and make new discoveries that improve all our lives.

And through the countless ways KU works for Kansas, we embody the spirit of community that has bound us together as a state for nearly 150 years.

It is those stories of service that are outlined in this booklet — stories detailing how KU’s students, graduates, faculty, and staff are working to improve the health and well-being of our state.

You’ll read about KU students who came together to build an arts center for a town that had lost everything except its spirit.

You’ll read about the work KU scientists are doing to defeat cancer and the service our doctors and students provide to patients at clinics around Kansas.

There are stories of researchers working with families whose children have autism and others who invented a tool that helps premature babies grow and thrive.

And you’ll learn about the work being done at KU to study the health of our land, as well as reading the inspiring story of wounded warriors going back to school so they can continue their service to our nation.

These and other stories of how KU works for Kansas through its mission of teaching, research, and service are what make KU such an asset to our state.

They’re also why it has been a distinct honor to serve as chancellor these past 14 years and why, when I step down from the post June 30, I will do so knowing that the University of Kansas’ commitment to the values of our state is stronger than ever.

Robert E. Hemenway
Chancellor
John Babcock, Holton, a senior majoring in music, is a member of the Mortar Board honor society. Active in Student Union Activities, the Methodist student group Wesley-KU, and New Student Orientation, he will participate in Teach for America in Kansas City after graduation.

kuworks.ku.edu
Hope is on the Kansas horizon for women who receive the devastating diagnosis of ovarian cancer, now that federal regulators have approved a Phase I clinical trial for Nanotax, a drug developed by KU researchers. Select area patients are enrolled in the first clinical trials now at the KU Cancer Center, headed by Roy Jensen.

“Nanotax was discovered, developed and will be delivered at clinical trials right here at KU,” Jensen said. “This trial is only the beginning, because our goal is to be the No. 1 academic producer of anti-cancer drugs.”

That would benefit all Kansans by providing world-class treatments for cancers. Additionally, excellent jobs will be available through companies like CritiTech, a Lawrence pharmaceutical firm spun off from KU that would market the drug to patients and their physicians.

cancer.kumc.edu
D. Fernando Estrada, a Dodge City native, is a U.S. Army veteran of the war in Iraq and earned a Bronze Star for meritorious service. A Self Graduate Fellow, he is working on a doctorate in biochemistry, researching hantaviruses. He volunteers at the KCK Urban Academy, working in science labs with area high-school students.

Helping Preemies Thrive

In the blue neon glow of neonatal intensive care cribs, feeding and oxygen tubes nearly hide tiny premature infants. No wonder such babies often fail to develop the crucial sucking motion that is essential to nourishment as well as other muscle development.

Enter Steven Barlow, professor and director of KU’s Communication Neuroscience Laboratories, and University of Northern Colorado assistant professor Donald Finan, who developed the KU-patented and FDA-approved NTrainer. This therapeutic device teaches preemies how to develop the rhythms of sucking, which also may enhance language development.

Clinical trials of the NTrainer are under way in two Kansas hospitals. One hope is that the therapy may shorten hospital stays. “In today’s health care environment,” Barlow says, “being able to send a baby home just one week earlier could save nearly $30,000 in medical costs.”

www.lsi.ku.edu

The NTrainer therapeutic device, patented by KU and approved by the FDA, helps teach premature babies the muscle movements necessary to make sucking motions. A KU-led research team also is studying the NTrainer’s effect on other muscle and language development.
One of KU’s newest research centers is dedicated to discovering the causes and improving the management of a spectrum of baffling disorders.

The Kansas Center for Autism Research and Training (K-CART), with the help of a Medicaid waiver program, will teach educators and parents throughout the state skills to improve behavior and communication in children with autism, Asperger’s, and other developmental disorders. Communities that will benefit include Salina, Junction City, Hays, Beloit, Caney, Newton, and Leavenworth.

Fort Leavenworth mom Suzanne Cannon and her daughter, Grace, 5, have benefited greatly.

“She has made dramatic improvements in her language and social skills,” Cannon says. “We also participated in the Parent Support and Training Program, which offered tutorials and workshops for parents. This helped me a great deal as a mom to better understand and participate in Grace’s behavioral program.”

KU’s new Autism Training Program focuses on preparing individuals throughout the state to provide intensive early intervention services for children who are diagnosed with this range of disorders.

AID FOR CHILDREN WITH AUTISM

The University of Kansas

kcart.ku.edu
Kaleigh Braun, a Hutchinson senior, is concentrating on biomedical engineering and is considering medical school. She’s president of the Engineering Student Council and an Engineering Ambassador and serves on the executive board of Up ‘til Dawn, which raises funds for St. Jude’s Children’s Hospital.

More wounded U.S. military personnel are surviving than ever before, but their injuries often make it difficult to continue serving.

The Army Wounded Warriors Education Initiative Program at KU, headed by history professor Adrian Lewis, a retired U.S. Army major, gives personnel wounded in Iraq or Afghanistan the chance to earn graduate degrees and continue serving, both in and out of the Army. Three active and four retired officers are participating.

Jason Gladney, a retired first lieutenant, was injured serving in Iraq. “My whole family has served. My brother is in Iraq,” Gladney said. “The Army didn’t have to do this for us, but I’m proud that I’ll be able to continue my service.”

Capt. Wes Fine, also injured in Iraq, had hoped to go into the Special Forces. His injury changed that goal, but, he said, “because of this program, everything’s been pretty much taken care of, and the big thing for me is knowing I’m going to have a job.”

Gladney and Fine will most likely teach at the Command and General Staff College at Fort Leavenworth after completing their degrees.

www.opmge.ku.edu/academic_initiatives.shtml
Flatbed trucks (left) transported prefabricated modules for a new arts center from the Studio 804 workshop in Lawrence to Greensburg in March 2008. The modules were lowered onto the prepared foundation (center), and architecture professor Dan Rockhill (top right) and his students completed construction. The 5,477 square feet Arts Center (below) features recycled wood, solar panels, geothermal heating, and other sustainable systems. It was awarded the U.S. Green Building Council’s LEED Platinum certification, the first Kansas structure to meet its rigorous standard for environmental sustainability.
Koga Ndikum-Moffor, an Overland Park junior, is majoring in human biology and psychology and considering applying to law school. She is president of the Black Student Union and parliamentarian for the Big XII Conference on Black Student Government, whose 2009 conference was at KU in February.

SUSTAINABLE SUPPORT

One of the first public structures to rise above the gaunt landscape of tornado-beaten Greensburg was the 5.4.7 Arts Center. The gleaming green glass and wood building was designed and built by KU architecture students to meet the highest standards for energy sustainability.

The center in return helps sustain the community’s spirit by providing space for cultural and civic events — and it has benefited public health. When KU pharmacy students learned Greensburg’s drugstore also was lost in the tornado, putting Kiowa County among the six in Kansas with no community pharmacy, they went to work raising funds for flu inoculations.

“Our students raised nearly $4,000 to purchase vaccine,” said pharmacy professor Robert Emerson, “and were able to administer free influenza vaccinations to 200 residents of Greensburg.”

www.pharm.ku.edu
www.features.ku.edu/greensburg

KU WORKS FOR KANSAS | kuworks.ku.edu
The Kansas River, which originates near Junction City in Geary County and runs east to join the Missouri River in Kansas City, drains most of the northern half of the state. The collaborative eco-forecasting study by KU and K-State focuses on this area.

PROTECTING THE PRAIRIE

Research teams from KU and Kansas State University are collaborating on a three-year ecological-forecasting study of how climate and people affect Central Plains plants, animals, soil, groundwater, and rivers.

The results will give researchers the ability to help Kansas resource managers, farmers, ranchers, public health workers, and other officials predict the effects of environmental changes and threats.

One project, for instance, compares new information to historical records to see how land use has changed. Another studies how temperature, rainfall and human activity affect rivers and streams.

As project co-director Leonard Krishtalka of KU’s Biodiversity Institute notes: “The ability to understand, forecast, and sustain grassland ecosystem services will be vital to the economic prosperity and quality of life in Kansas for many years.”

www.nhm.ku.edu
www.k-state.edu/ecoforecasting
www.kars.ku.edu/projects/ecoforecasting

KANSAS RIVER DRAINAGE BASIN

The Kansas River, which originates near Junction City in Geary County and runs east to join the Missouri River in Kansas City, drains most of the northern half of the state. The collaborative eco-forecasting study by KU and K-State focuses on this area.
For Rigoberto Ramirez, volunteering at the JayDoc Clinic in Kansas City, Kan., is a natural component of his commitment to service.

Ramirez left a business career and worked at a hospital in his hometown, Great Bend, while waiting to start medical school. Now in his second year at the KU School of Medicine, he is one of three executive directors of the all-volunteer clinic run by KU students and physicians from the staff and community. About 2,000 patients a year, many without health insurance, receive free treatment or referral.

Ramirez and his colleagues, and a similar group at the KU School of Medicine in Wichita, know how essential their service is. ‘Fortunately,’ he says, ‘JayDoc has been there to catch many of these patients and keep them healthy enough to continue working.’

Kansas City, Kan.

www.jaydocfreeclinic.org

Wichita

jaydoc.org

HELPING WITH HEALTH COSTS
Clark Pharmacy in Cimarron is a classic small-town drugstore, complete with a soda fountain worthy of Norman Rockwell. Owner Jim Coast, a 1972 KU pharmacy graduate, fills prescriptions with his son Mike, a 1995 alumnus.

They offer one-stop shopping for their Southwest Kansas customers, including a home décor and gift department managed by Jim’s wife, Sandi. “But we also provide a lot of essential services,” Jim Coast said. “If we weren’t here, people would have to drive nearly 20 miles to Dodge City to get prescriptions filled.”

The Coasts also serve their community by training KU student pharmacists. Fourth- and sixth-year interns learn to serve a rural community by mixing drugs and filling prescriptions as well as providing consulting to 16 area long-term care facilities.

Will Anderson, an Arkansas City sophomore and a Summerfield Scholar, is majoring in pre-pharmacy. He’s applied for admission to the School of Pharmacy and works at a local drugstore. He’s an avid photographer and clarinetist.
Essential Equipment

The rural Dickinson County parents of two boys who are developmentally delayed and a Salina man recovering from an accident are among the 9,700 clients of the Kansas Equipment Exchange since its founding in 2000.

The exchange, begun by director Sara Sack at KU’s Life Span Institute in Parsons, collects donations of wheelchairs, hospital beds, van lifts, and other medical equipment. The pieces are refurbished and have been distributed from regional centers in Parsons, Lawrence, Oakley, Salina, and Wichita to clients in every Kansas county.

The boys’ mother is thankful for a stairway chairlift for her growing children, because, she says, “We couldn’t have afforded it otherwise.” And the Salina man notes that power and manual wheelchairs and a hospital bed have permitted him to remain at home to recuperate.

www.parsonslsi.ku.edu
www.atk.ku.edu/accesssitemap.htm
Jude Kastens grew up tending wheat, corn, and milo on his family’s farm in Rawlins County. He draws on that agricultural upbringing as a assistant research professor with KU’s Kansas Applied Remote Sensing program.

Kastens and colleagues analyze information and imagery from polar-orbiting satellites that they publish in a map series, the GreenReport. This measures crop conditions and growth so that farmers in Kansas and elsewhere can look at the entire nation’s vegetation, or focus on the Corn Belt or the Wheat Belt to compare productivity to past years.

“Farmers have to rely on a lot of information,” said Kastens. “Producers can use the information we provide to give them a better feel for what the overall crop will be like, and hopefully that will help them to make better marketing decisions.”

www.kars.ku.edu
Psychology professors Nancy Hamilton and Ruth Ann Atchley are leading projects to understand how sleep affects the lives of women with fibromyalgia, characterized by widespread pain in muscles and tissues. One project examines the relationship between sleep and attention and memory. Another tests whether sleep interventions help alleviate the pain and fatigue of the condition.

Social welfare professor Alice Lieberman heads a five-year effort, funded by a $2.5 million grant from the Department of Health and Human Services, to build a statewide training program for child-welfare workers, supervisors, and administrators. The Kansas Workforce Initiative will support staffing for private, tribal, and government organizations.

Kimber Richter, associate professor of preventive medicine and public health, is lead investigator on a $2-million, four-year grant from the National Institutes of Health that will study the effectiveness of stop-smoking programs done by video contact between doctors’ offices and counselors. Ryan Spaulding, director of KU’s Center for TeleMedicine and TeleHealth, is developing the video interactions with physicians’ offices in rural Kansas.

Elizabeth Ablah, assistant professor of preventive medicine and public health at the School of Medicine-Wichita, leads a two-year study to develop a grassroots program to help people in the community discuss environmental issues and set priorities to address them. It is funded by a $100,000 grant from the Environmental Protection Agency.

The New York Times reported recently on the effects of “elderspeak” on older patients. One study by Kristine Williams, associate professor at the School of Nursing, determined that older adults with dementia were more likely to become resistant and hostile when nursing staffs used well-meaning “baby talk” communication. Williams’ team developed training that helps nursing-home staffs be more respectful and less controlling yet still caring.
For many of the 13,000 Kansans diagnosed with cancer each year, the disease is just the first challenge.

Getting treatment too often requires leaving the state, adding to their burden.

The University of Kansas is working to change that.

We’re seeking designation as a Comprehensive Cancer Center by the National Cancer Institute.

That designation would boost the KU Cancer Center’s efforts to find a cure and make the latest treatments available to Kansans — here in Kansas.

Patients will be able to receive these treatments through a network of local hospitals — the Midwest Cancer Alliance — that will bring advanced care directly to Kansas communities.